CLAIMS:

1. A mechanical structure comprising a substrate and a layer of an oriented polymerized liquid crystal forming an element on said substrate,
wherein said element is locally adhered to an adhering region of said substrate and is delaminated from said substrate at a non-adhering region of said substrate, where said adhering region has a higher adhesiveness to the polymerized liquid crystal than said non-adhering region; and
wherein the oriented polymerized liquid crystal of said layer has an anisotropic orientation such as to render the element moveable by non-mechanical means between a first state having a first shape and a second state having a second shape different from the first.

2. A mechanical structure according to claim 1, wherein said non-mechanical means include a variation in temperature.

3. A mechanical structure according to claim 1, wherein said non-mechanical means include exposure to electromagnetic radiation of different wavelengths.

4. A mechanical structure according to claim 2, wherein the substrate includes an orientation layer a surface of which comprises at least said non-adhering region.

5. A mechanical structure according to claim 1, 2, 3 or 4 wherein said non-adhering region is formed of an apolar polyimide surface and said adhering region is formed of a polar polyimide surface obtainable by oxidizing an apolar polyimide surface.

6. A mechanical structure according to claim 1, 2, 3, 4 or 5 wherein, at the adhering region, the polymerized liquid crystal is covalently bonded to the substrate.

7. A mechanical structure according to claim 5, wherein said non-mechanical means include a control electrode provided on said element and a ground electrode provided

on said substrate, such that said element is moveable between said first and second state by means of electrostatic forces set up between said control and ground electrode.

8. A mechanical structure as claimed in claim 1, 2, 3, 4, 5, 6 or 7 wherein the polymerized liquid crystal has a twisted nematic orientation.

9. A mechanical structure as claimed in claim 1, 2, 3, 4, 5, 6 or 7 wherein the polymerized liquid crystal has a splay orientation.

10. A method of manufacturing a mechanical structure comprising a substrate and a layer of an oriented polymerized liquid crystal forming an element on said substrate, wherein the oriented polymerized liquid crystal of said layer has an anisotropic orientation such as to render the element moveable by non-mechanical means between a first state having a first shape and a second state having a second shape different from the first, said method comprising the steps of:

- providing a substrate that has a patterned surface comprising an adhering region and a non-adhering region, wherein said adhering region has a higher adhesiveness to the polymerized liquid crystal than said non-adhering region;
- applying a layer of polymerizable liquid crystal on said patterned surface; orienting the polymerizable liquid crystal in said layer;
- polymerizing said oriented polymerizable liquid crystal to provide a layer of oriented polymerized liquid crystal which layer adheres well to the adhering region and less well to the non-adhering region; and
- delaminating said layer of oriented polymerized liquid crystal mixture from the substrate at the said non-adhering region.

11. A method according to claim 10, wherein the step of providing a substrate that has a patterned surface includes providing selectively at the adhering region an orientation layer including chemical groups which are capable of reacting with the polymerizable liquid crystal mixture, such as an oriented polyimide layer including acrylate groups.

12. A method according to claim 10, wherein the step of providing a substrate that has a patterned surface includes providing selectively at said non-adhering region an

orientation layer including inhibiting groups which inhibit polymerization of the polymerizable liquid crystal mixture adjacent said non-adhering region.

13. A method according to claim 10, wherein the step of providing a substrate that has a patterned surface includes providing an apolar polyimide orientation layer at said adhering and non-adhering region and selectively oxidizing said polyimide orientation layer at said adhering region to render the adhering region polar.

14. A method according to claim 10, wherein said step of polymerizing said polymerizable liquid crystal includes the step of bringing, on the side facing away from the substrate, the polymerizable liquid crystal into contact with an orientation layer to provide the polymerizable liquid crystal at that side with an orientation which is different from the orientation induced in the polymerizable liquid crystal adjacent the substrate.

15. A method according to claim 14, wherein the orientation layer provided on the side facing away from the substrate has a surface functionalized with surfactants providing the polymerizable liquid crystal adjacent said orientation layer with a homeotropic orientation.

16. A method according to claim 10, wherein said polymerizable liquid crystal comprises a monomer that has a polar end and an apolar end rendering the monomer capable of inducing a homeotropic orientation at a surface of the layer of polymerizable liquid crystal which is in contact with air.